AMENDMENTS TO THE SPECIFICATION

Page 9, paragraph 26, please amend as follows:

[0026] FIG 3D illustrates an alternate embodiment of the present invention, wherein three implants 900, 901 and 902 are implanted into a p-type substrate 915. The implants 900, 901 and 902, are placed in substrate 915 in a manner similar to that described in the embodiment of FIG. 3A-C, except that the implant angle for each of the implants (θ_1, θ_2, and θ_3) is reduced to a range of 0-5°, where at least one of the implants 901 and 902 has an implant angle greater than 0°. Once the implants have been set, a fourth light implant (PD 4) ~~920~~ 910 is made in the region of the second 901 implant, on the side closest to the transfer gate. The fourth implant is inserted 913 at an increased angle θ_4, wherein the implant angle θ_4 is measured away from a line normal to the surface of the substrate, as shown in FIG. 3D, and is preferably in the range of 10-30° of normal. Exemplary implant doses for the fourth implant may be in the range of 2e11/cm^2-5e12/cm^2. It is understood that the order of the implants (900, 901, 902 and 904 (if provided)) is not critical; each of the disclosed implants may be arranged in any order.

Page 12, paragraph 30, please amend as follows:

[0030] Region I, generally defined by the region above 131 and below regions 104 and floating diffusion 702, has the largest donor concentration between the range of just over 5E16 /cm^3 to 5E17/cm^3. Region II, generally defined by the region between 126 and 131, has a lesser donor concentration between the ranges of just over 5E15/cm^3 to 5E16/cm^3. Region III, generally defined by the region between 121 and 126, has yet a smaller donor concentration between the ranges of just over 1E14/cm^3 to 5E15/cm^3. Region IV, generally defined by the region below 121, contains the lowest donor concentration at or below 1E14/cm^3. As can be seen in the electrostatic potential contour illustration, the reduction of the implant angle θ_3 from 30° to 15° from the previous

embodiment has resulted in a wider expansion of Region II from the previous embodiment, directly beneath ~~gat~~ gate 940, resulting in a further reduction in donor impurities underneath the transfer gate 940.

Page 13, paragraph 32, please amend as follows:

[0032] Region I, generally defined by the region above 132 and below regions 104 and floating diffusion 702, has the largest donor concentration between the range of just over 5E16 /cm^3 to 5E17/cm^3. Region II, generally defined by the region between 127 and 132, has a lesser donor concentration between the ranges of just over 5E15/cm^3 to 5E16/cm^3. Region III, generally defined by the region between 122 and 127, has yet a smaller donor concentration between the ranges of just over 1E14/cm^3 to 5E15/cm^3. Region IV, generally defined by the region below 122, contains the lowest donor concentration at or below 1E14/cm^3. As can be seen in the electrostatic potential contour, the reduction of the implant angles θ_3 from 15° to 5°, and the increase of implant angle θ_2 from 5° to 30° from the previous embodiment has resulted in even a wider expansion of Region II from the previous embodiment, directly beneath ~~gat~~ gate 940, resulting in a further reduction in donor impurities underneath the transfer gate 940.